

Amendments to the Claims:

This listing of claims will replace all prior versions and listings of claims in the application:

Listing of Claims:

Claim 1 (currently amended): A method of generating a customized report from relational data stored in a database, said method comprising:

providing metadata associated with the data in the database, said metadata describing the data according to one or more characteristics of the data;

defining a plurality of tables according to the characteristics of the data in the database as described by the metadata;

estimating a size of each of the defined tables;

receiving a request for information from a user, said request specifying search criteria; and

executing a predefined procedure for comparing the search criteria specified by the received request to the metadata and identifying at least one of the defined tables as a function of the search criteria, said procedure further constructing a query based on the identified at least one of the defined tables having the smallest estimated size, said query retrieving selected data from the database at least one of the defined tables having the smallest estimated size in response to the request for information as a function of the characteristics of the data as described by the metadata for optimizing retrieval of the selected data.

Claim 2 (original): The method of claim 1, further comprising generating the report in response to the query, said report including the selected data retrieved from the database when the procedure is executed.

Claim 3 (original): The method of claim 1, wherein the request from the user specifies a format for the report, search criteria, or both.

Claim 4 (original): The method of claim 1, further comprising defining a plurality of tables for organizing the metadata relative to the data in the database.

Claim 5 (original): The method of claim 4, wherein one or more of the tables is exposed as a dimension having one or more columns of attributes.

Claim 6 (original): The method of claim 5, further comprising creating a structured query language Claim 1 (SQL) view for each of the tables to be exposed as a dimension.

Claim 7 (original): The method of claim 4, further comprising creating, for each fact, a fact view to expose attributes and measures for querying.

Claim 8 (original): The method of claim 4, wherein each table contains metadata associated with one of the following: an attribute; a dimension; a measure; or a fact.

Claim 9 (original): The method of claim 1, wherein executing the predefined procedure to construct the query includes matching the metadata to search criteria in the request for information.

Claim 10 (original): The method of claim 1, wherein the query constructed by the predefined procedure comprises one or more SQL statements.

Claim 11 (original): The method of claim 1, wherein providing the metadata further comprises defining measures and associating the defined measures to applicable facts.

Claim 12 (original): The method of claim 1, further comprising generating a SQL view to display information relating to the query constructed by the predefined procedure.

Claim 13 (currently amended): The method of claim 1, further comprising defining a query syntax according to which the request for information ~~identifies~~ specifies the search criteria for the selected data.

Claim 14 (canceled)

Claim 15 (canceled)

Claim 16 (currently amended): The method of claim 1 ~~[[5]]~~, wherein ~~each table contains the~~ metadata is associated with one or more attributes and measures; wherein the search criteria specifies at least one of said one or more attributes and measures; and wherein ~~determining which~~ identifying at least one of the tables ~~substantially matches the search criteria~~ comprises identifying which of the tables contains data described by metadata associated with substantially all of the attributes and the greatest number of measures specified in the search criteria.

Claim 17 (currently amended): The method of ~~claim 4~~ claim 13, wherein the request for information according to the query syntax comprises one or more delimited lists.

Claim 18 (currently amended): The method of ~~claim 4~~ claim 13, wherein the request for information according to the query syntax includes a user-selected input representative of one or more of the following: a column list parameter; a slice parameter; a fact-type parameter; a crosstab result parameter; an options parameter; and a sort order parameter.

Claim 19 (currently amended): The method of ~~claim 4~~ claim 13, wherein the query syntax includes a user-selected input representative of ~~[[the]]~~ a column list parameter and ~~[[the]]~~ said column list parameter comprises a delimited list of

dimensions, measures, or both, said delimited list representing a type of data to be retrieved from the database in response to the query.

Claim 20 (currently amended): The method of ~~claim 18~~ claim 13, wherein the query syntax includes a user-selected input representative of [[the]] a slice parameter and [[the]] said slice parameter specifies a date range search criteria.

Claim 21 (currently amended): The method of ~~claim 18~~ claim 13, wherein the query syntax includes a user-selected input representative of [[the]] a slice parameter and [[the]] said slice parameter specifies a name search criteria.

Claim 22 (currently amended): The method of ~~claim 18~~ claim 13, wherein the query syntax includes a user-selected input representative of [[the]] an options parameter and [[the]] said options parameter specifies one or more of the following: a debugging option; a non-sorting option; a row limiting option; and a hierarchical navigation option.

Claim 23 (original): The method of claim 1, wherein the predefined procedure comprises a template for generating a set of SQL statements for implementing the query.

Claim 24 (original): One or more computer-readable media have computer-executable instructions for performing the method of claim 1.

Claim 25 (currently amended): A method of constructing a query for retrieving selected data from a database in response to a request from a user for information, said method comprising:

defining metadata to describe data in the database according to one or more characteristics of the data;

defining a plurality of tables according to the characteristics of the data in the database as described by the metadata ~~for organizing the metadata relative to the data,~~

one or more of the tables being exposed as a dimension having at least one column of attributes;

estimating a size of each of the defined tables;

comparing search criteria specified by the request for information to the metadata attributes; and

executing a predefined procedure in response to the request for information to identify at least one of the defined tables as a function of the search criteria, said procedure further generating a set of structured query language (SQL) statements based on the identified at least one of the defined tables having the smallest estimated size, as a function of the comparison between the search criteria and the metadata attributes for implementing the said query retrieving selected data from the at least one of the identified tables having the smallest estimated size as a function of the characteristics of the data as described by the metadata to optimize retrieval of the selected data from the database.

Claim 26 (original): The method of claim 25, further comprising generating the report in response to the query, said report including the selected data retrieved from the database when the procedure is executed.

Claim 27 (original): The method of claim 25, further comprising creating a SQL view for each of the tables to be exposed as a dimension.

Claim 28 (original): The method of claim 25, further comprising creating, for each fact, a fact view to expose attributes and measures for querying.

Claim 29 (original): The method of claim 25, wherein each table contains metadata associated with one of the following: an attribute; a dimension; a measure; or a fact.

Claim 30 (original): The method of claim 25, wherein defining the metadata further comprises defining measures and associating the defined measures to applicable facts.

Claim 31 (original): The method of claim 25, further comprising generating a SQL view to display information relating to the query constructed by the predefined procedure.

Claim 32 (original): The method of claim 25, further comprising defining a query syntax according to which the request for information identifies search criteria for the selected data.

Claim 33 (canceled).

Claim 34 (canceled).

Claim 35 (currently amended): The method of claim ~~[[34]]~~25 wherein each table contains metadata associated with one or more attributes and measures;

wherein the search criteria specifies at least one of said one or more attributes and measures; and

wherein ~~determining which~~ identifying at least one of the tables substantially matches the search criteria comprises identifying which of the tables contains data described by metadata associated with substantially all of the attributes and the greatest number of measures specified in the search criteria.

Claim 36 (currently amended): The method of ~~claim 25~~ claim 32, wherein the request for information according to the query syntax comprises one or more user-selected parameters representing a type of data to be retrieved from the database in response to the query.

Claim 37 (original): One or more computer-readable media have computer-executable instructions for performing the method of claim 25.

Claim 38 (currently amended): One or more computer-readable media having computer-executable components for generating a report from data stored in a database, said computer-readable media comprising:

a metadata component for describing the data in the database according to one or more characteristics of the data, said metadata component further defining a plurality of tables according to the characteristics of the data in the database as described by the metadata, said metadata component further estimating a size of each of the defined tables;

an interface component for receiving a request for information from a user, said request specifying search criteria; and

a procedure component responsive to the request for information for constructing a query to retrieve selected data from the database, said procedure component comparing the search criteria specified by the received request to the metadata and identifying at least one of the defined tables as a function of the search criteria, said procedure further constructing the query based on the identified at least one of the defined tables having the smallest estimated size, said query retrieving selected data from the database in response to the request for information as a function of the characteristics of the data as described by the metadata component for optimizing retrieval of the selected data.

Claim 39 (original): The computer-readable media of claim 38, wherein the request from the user specifies a format for the report, search criteria, or both.

Claim 40 (original): The computer-readable media of claim 38, wherein the metadata component comprises a plurality of tables containing metadata, said tables organizing the metadata relative to the data in the database.

Claim 41 (original): The computer-readable media of claim 40, wherein at least one of the tables is exposed as a dimension having one or more columns of attributes.

Claim 42 (original): The computer-readable media of claim 41, wherein the metadata component includes a structured query language (SQL) view for each of the tables to be exposed as a dimension.

Claim 43 (original): The computer-readable media of claim 42, wherein the metadata component automatically populates the metadata through the SQL view.

Claim 44 (original): The computer-readable media of claim 40, wherein the metadata component includes, for each fact, a fact view to expose attributes and measures for querying.

Claim 45 (original): The computer-readable media of claim 40, wherein each table contains metadata associated with one of the following: an attribute; a dimension; a measure; or a fact.

Claim 46 (canceled).

Claim 47 (original): The computer-readable media of claim 38, wherein the query constructed by the procedure component comprises one or more SQL statements.

Claim 48 (original): The computer-readable media of claim 38, wherein the interface component comprises a query syntax according to which the request for information identifies search criteria for the selected data.

Claim 49 (currently amended): The computer-readable media of ~~claim 38~~ claim 48, wherein the request for information according to the query syntax comprises one or more delimited lists.

Claim 50 (currently amended): The computer-readable media of ~~claim 38~~ claim 48, wherein the request for information according to the query syntax includes a user-selected input representative of one or more of the following: a column list parameter; a slice parameter; a fact-type parameter; a crosstab result parameter; an options parameter; and a sort order parameter.

Claim 51 (currently amended): The computer-readable media of ~~claim 50~~ claim 48, wherein the query syntax includes a user-selected input representative of ~~the a~~ a column list parameter and ~~the said~~ the column list parameter comprises a delimited list of dimensions, measures, or both, representing a type of data to be retrieved from the database in response to the query.

Claim 52 (currently amended): The computer-readable media of ~~claim 50~~ claim 48, wherein the query syntax includes a user-selected input representative of ~~the a~~ a slice parameter and ~~the said~~ the slice parameter specifies a date range search criteria.

Claim 53 (currently amended): The computer-readable media of ~~claim 50~~ claim 48, wherein the query syntax includes a user-selected input representative of ~~the a~~ a slice parameter and ~~the said~~ the slice parameter specifies a name search criteria.

Claim 54 (currently amended): The computer-readable media of ~~claim 50~~ claim 48, wherein the query syntax includes a user-selected input representative of ~~the an~~ an options parameter and ~~the said~~ the options parameter specifies one or more of the following: a debugging option; a non-sorting option; a row limiting option; and a hierarchical navigation option.

Claim 55 (original): The computer-readable media of claim 38, wherein the procedure component comprises a predefined template for generating a set of SQL statements for implementing the query.

Claim 56 (original): The computer-readable media of claim 38, wherein the interface component comprises an application programming interface.